ALUMINUM ELECTROLYTIC CAPACITORS

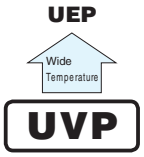
nichicon

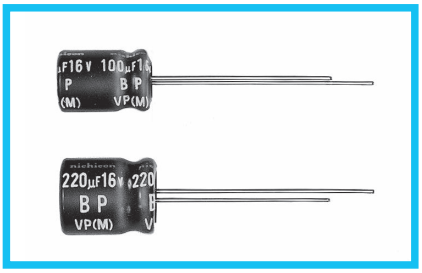
UVP

Bi-Polarized

Bi-polarized　Anti-Solvent Feature

- Standard bi-polarized series for entertainment electronics.
- Compliant to the RoHS directive (2011/65/EU,(EU)2015/863).





■Specifications

Item	Performance Characteristics
Category Temperature Range	−40 to +85°C
Rated Voltage Range	6.3 to 100V
Rated Capacitance Range	1 to 6800μF
Capacitance Tolerance	±20% at 120Hz, 20°C
Leakage Current	After 5 minutes' application of rated voltage at 20°C, leakage current is not more than 0.03CV or 3 (μA), whichever is greater.
Tangent of loss angle (tan δ)	For capacitance of more than 1000μF, add 0.02 for every increase of 1000μF. Measurement frequency : 120Hz at 20°C

Rated voltage (V)	6.3	10	16	25	35	50	63	100
tan δ (MAX.)	0.26	0.24	0.22	0.20	0.16	0.14	0.12	0.10

Stability at Low Temperature — Measurement frequency : 120Hz

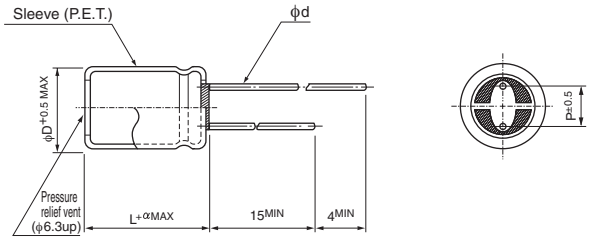
Rated voltage (V)		6.3	10	16	25	35	50	63	100
Impedance ratio (MAX.)	Z−25°C / Z+20°C	4	3	2	2	2	2	2	2
	Z−40°C / Z+20°C	10	8	6	5	4	4	3	3

Endurance — The specifications listed at right shall be met when the capacitors are restored to 20°C after the rated voltage is applied for 2000 hours at 85°C with the polarity inverted every 250 hours.

Capacitance change	Within ±20% of the initial capacitance value
tan δ	200% or less than the initial specified value
Leakage current	Less than or equal to the initial specified value

Shelf Life	After storing the capacitors under no load at 85°C for 1000 hours and then performing voltage treatment based on JIS C 5101-4 clause 4.1 at 20°C, they shall meet the specified values for the endurance characteristics listed above.
Marking	Printed with white color letter on black sleeve.

■Radial Lead Type



α	(L < 20) 1.5
	(L ≧ 20) 2.0

(mm)

φD	5	6.3	8	10	12.5	16	18
P	2.0	2.5	3.5	5.0	5.0	7.5	7.5
φd	0.5	0.5	0.6	0.6	0.6	0.8	0.8

• Please refer to page 18 about the end seal configuration.

Type numbering system (Example : 10V 47μF)

1	2	3	4	5	6	7	8	9	10	11
U	V	P	1	A	4	7	0	M	D	D

Configuration ※
Capacitance tolerance (±20%)
Rated capacitance (47μF)
Rated voltage (10V)
Series name
Type

※ Configuration

φ D	Pb-free leadwire Pb-free PET sleeve
5	DD
6.3	ED
8 · 10	PD
12.5 to 18	HD

● Frequency coefficient of rated ripple current

Cap.(μF) \ Frequency	50 Hz	120 Hz	300 Hz	1 kHz	10 kHz or more
1 to 47	0.75	1.00	1.35	1.57	2.00
100 to 470	0.80	1.00	1.23	1.34	1.50
1000 to 6800	0.85	1.00	1.10	1.13	1.15

● Dimension table in next page.

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■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L(mm)	tan δ	Leakage Current (μA) (at 20℃ after 5 minutes)	Rated Ripple (mArms) (85℃/120Hz)	Part Number
6.3 (0J)	33	5×11	0.26	6.237	64	UVP0J330MDD
	47	5×11	0.26	8.883	76	UVP0J470MDD
	100	6.3×11	0.26	18.9	125	UVP0J101MED
	220	8×11.5	0.26	41.58	215	UVP0J221MPD
	330	8×11.5	0.26	62.37	265	UVP0J331MPD
	470	10×12.5	0.26	88.83	370	UVP0J471MPD
	1000	10×20	0.26	189	650	UVP0J102MPD
	2200	12.5×25	0.28	415.8	1160	UVP0J222MHD
	3300	16×25	0.30	623.7	1570	UVP0J332MHD
	4700	16×31.5	0.32	888.3	2020	UVP0J472MHD
	6800	18×35.5	0.36	1285.2	2600	UVP0J682MHD
10 (1A)	22	5×11	0.24	6.6	57	UVP1A220MDD
	33	5×11	0.24	9.9	64	UVP1A330MDD
	47	5×11	0.24	14.1	76	UVP1A470MDD
	100	6.3×11	0.24	30	125	UVP1A101MED
	220	8×11.5	0.24	66	215	UVP1A221MPD
	330	10×16	0.24	99	345	UVP1A331MPD
	470	10×16	0.24	141	410	UVP1A471MPD
	1000	12.5×20	0.24	300	720	UVP1A102MHD
	2200	16×25	0.26	660	1280	UVP1A222MHD
	3300	16×31.5	0.28	990	1690	UVP1A332MHD
	4700	18×35.5	0.30	1410	2160	UVP1A472MHD
16 (1C)	10	5×11	0.22	4.8	42	UVP1C100MDD
	22	5×11	0.22	10.56	57	UVP1C220MDD
	33	5×11	0.22	15.84	70	UVP1C330MDD
	47	6.3×11	0.22	22.56	95	UVP1C470MED
	100	8×11.5	0.22	48	160	UVP1C101MPD
	220	10×12.5	0.22	105.6	275	UVP1C221MPD
	330	10×16	0.22	158.4	375	UVP1C331MPD
	470	10×20	0.22	225.6	485	UVP1C471MPD
	1000	12.5×25	0.22	480	855	UVP1C102MHD
	2200	16×31.5	0.24	1056	1510	UVP1C222MHD
	3300	18×35.5	0.26	1584	1980	UVP1C332MHD
25 (1E)	10	5×11	0.20	7.5	42	UVP1E100MDD
	22	6.3×11	0.20	16.5	65	UVP1E220MED
	33	6.3×11	0.20	24.75	80	UVP1E330MED
	47	6.3×11	0.20	35.25	95	UVP1E470MED
	100	8×11.5	0.20	75	160	UVP1E101MPD
	220	10×16	0.20	165	305	UVP1E221MPD
	330	12.5×20	0.20	247.5	450	UVP1E331MHD
	470	12.5×20	0.20	352.5	540	UVP1E471MHD
	1000	16×25	0.20	750	950	UVP1E102MHD
	2200	18×35.5	0.22	1650	1620	UVP1E222MHD

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code “1” and then add the appropriate code.

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■ Dimensions

Rated Voltage (V) (code)	Rated Capacitance (μF)	Case Size φD×L(mm)	tan δ	Leakage Current (μA) (at 20℃ after 5 minutes)	Rated Ripple (mArms) (85℃/120Hz)	Part Number
35 (1V)	4.7	5×11	0.16	4.935	34	UVP1V4R7MDD
	10	5×11	0.16	10.5	43	UVP1V100MDD
	22	6.3×11	0.16	23.1	73	UVP1V220MED
	33	8×11.5	0.16	34.65	100	UVP1V330MPD
	47	8×11.5	0.16	49.35	120	UVP1V470MPD
	100	10×16	0.16	105	230	UVP1V101MPD
	220	12.5×20	0.16	231	410	UVP1V221MHD
	330	12.5×20	0.16	346.5	505	UVP1V331MHD
	470	12.5×25	0.16	493.5	655	UVP1V471MHD
	1000	16×31.5	0.16	1050	1140	UVP1V102MHD
50 (1H)	1	5×11	0.14	3	17	UVP1H010MDD
	2.2	5×11	0.14	3.3	25	UVP1H2R2MDD
	3.3	5×11	0.14	4.95	27	UVP1H3R3MDD
	4.7	5×11	0.14	7.05	34	UVP1H4R7MDD
	10	6.3×11	0.14	15	52	UVP1H100MED
	22	8×11.5	0.14	33	89	UVP1H220MPD
	33	8×11.5	0.14	49.5	105	UVP1H330MPD
	47	10×12.5	0.14	70.5	150	UVP1H470MPD
	100	10×20	0.14	150	265	UVP1H101MPD
	220	12.5×25	0.14	330	480	UVP1H221MHD
	330	16×25	0.14	495	650	UVP1H331MHD
	470	16×31.5	0.14	705	835	UVP1H471MHD
63 (1J)	3.3	5×11	0.12	6.237	28	UVP1J3R3MDD
	4.7	6.3×11	0.12	8.883	34	UVP1J4R7MED
	10	6.3×11	0.12	18.9	57	UVP1J100MED
	22	8×11.5	0.12	41.58	95	UVP1J220MPD
	33	10×12.5	0.12	62.37	135	UVP1J330MPD
	47	10×16	0.12	88.83	180	UVP1J470MPD
	100	12.5×20	0.12	189	320	UVP1J101MHD
	220	16×25	0.12	415.8	575	UVP1J221MHD
	330	16×31.5	0.12	623.7	655	UVP1J331MHD
	470	18×35.5	0.12	888.3	965	UVP1J471MHD
100 (2A)	1	5×11	0.10	3	21	UVP2A010MDD
	2.2	6.3×11	0.10	6.6	34	UVP2A2R2MED
	3.3	6.3×11	0.10	9.9	39	UVP2A3R3MED
	4.7	6.3×11	0.10	14.1	47	UVP2A4R7MED
	10	8×11.5	0.10	30	71	UVP2A100MPD
	22	10×16	0.10	66	135	UVP2A220MPD
	33	12.5×20	0.10	99	220	UVP2A330MHD
	47	12.5×20	0.10	141	240	UVP2A470MHD
	100	16×25	0.10	300	425	UVP2A101MHD
	220	18×35.5	0.10	660	720	UVP2A221MHD

For cut leads, formed leads or taped parts, please add the appropriate code after the size code (12th digit).
If there is no size code in the part number, please add size code “1” and then add the appropriate code.

Please refer to page 18, 19 about the formed or taped product spec.
Please refer to page 4 for the minimum order quantity.